

# ***Hodges Land Acquisition Habitat Conservation Project Draft Environmental Assessment***

**April 2008**



**Bighorn Sheep Grazing on the Hodges Property.**

**Montana Fish, Wildlife & Parks  
490 North Meridian Road  
Kalispell, Montana 59901  
(406) 752-5501**



**FUNDING PARTNERS**

# **Hodges Habitat Conservation Project**

## **Draft Environmental Assessment**

**Public Comment Period:**  
**Thirty days, from April 28 through May 28, 2008**

**Public Hearing:**  
**Monday, May 12, 2008, 7:00 p.m.**  
**Thompson Falls Court House**  
**1111 Main Street, Thompson Falls, MT**

**Address comments to:**

Bruce Sterling  
Area Wildlife Biologist  
P.O. Box 35  
Thompson Falls, MT 59873  
[bsterling@mt.gov](mailto:bsterling@mt.gov)  
(406) 827-4389

Jim Williams  
Wildlife Program Manager  
490 North Meridian Road  
Kalispell, MT 59901  
[jiwilliams@mt.gov](mailto:jiwilliams@mt.gov)  
(406) 752-5501



## TABLE of CONTENTS

Introduction .....	1
Project Proximity to Existing WMA .....	3
Detailed Project Descriptions .....	3
Habitat/Recreation Values .....	3
Location/Ownership .....	3
Costs/Funding Sources .....	4
Bighorn Sheep .....	4
Proposed Management Plan .....	5
Discussion of Alternatives .....	5
Alternative A – Proposed Action: Complete Fee Title Acquisition.....	5
Alternative B – No Action.....	6
Description of Area Related to Indirect or Cumulative Effects .....	6
Environmental Effects .....	6
Physical Environment .....	6
Land Resources.....	6
Air Quality .....	6
Water .....	7
Vegetation.....	7
Fish and Wildlife .....	7
Human Environment.....	7
Noise/Electrical Effects .....	7
Land Use .....	7
Risk/Health Hazards .....	8
Community Impact.....	8
Public Services .....	8
Aesthetics/Recreation .....	8
Cultural/Historic Resources .....	8
Summary Evaluation of Significance .....	9
List of Agencies Consulted During Preparation of EA .....	9
Public Involvement .....	9
Cost.....	9
Figure 1. Photo Showing Hodges' Property Location .....	2
Appendix A. Socioeconomic Assessment .....	10
Appendix B. How the Proposed Hodges Acquisition Fits into the Montana Fish, Wildlife & Parks Comprehensive Fish and Wildlife Conservation Strategy .....	14
Appendix C. MT Natural Heritage Program Species List and the Hodges Project .....	21



## INTRODUCTION

This approximately 52-acre parcel is located approximately eight miles east of Thompson Falls and about sixteen miles northwest of Plains (see photo). The land provides excellent fall, winter, and spring habitat for bighorn sheep and some mule deer. The property also includes the Bighorn Sheep Viewing Area, maintained by the Lolo National Forest, and is a tremendously popular tourist attraction. The southerly aspect of this property contributes to its importance as winter range for these species. The steep cliffs provide critical lambing areas for bighorn sheep.

The property also includes a 7-acre wetland area and pond, with numerous riparian species such as black cottonwood and quaking aspen. Several species of waterfowl use the area to nest. Ruffed grouse can be found feeding on native snowberry, rose, and scattered serviceberry bushes throughout the property and in the riparian zone. The property serves as habitat for black bear and an occasional mountain lion. Several species of hawks and golden eagles have been observed on the property. The numerous cliffs provide ideal nesting habitat for golden eagles. The property is located in the grizzly bear Bighole Peak recovery zone. Black bears use the property in the spring and fall seasons. The scope of native species present adds additional biological value to this unique property.



**Bighorn Sheep Viewing Area with signs describing bighorn biology, habitat needs, and other interesting facts.**

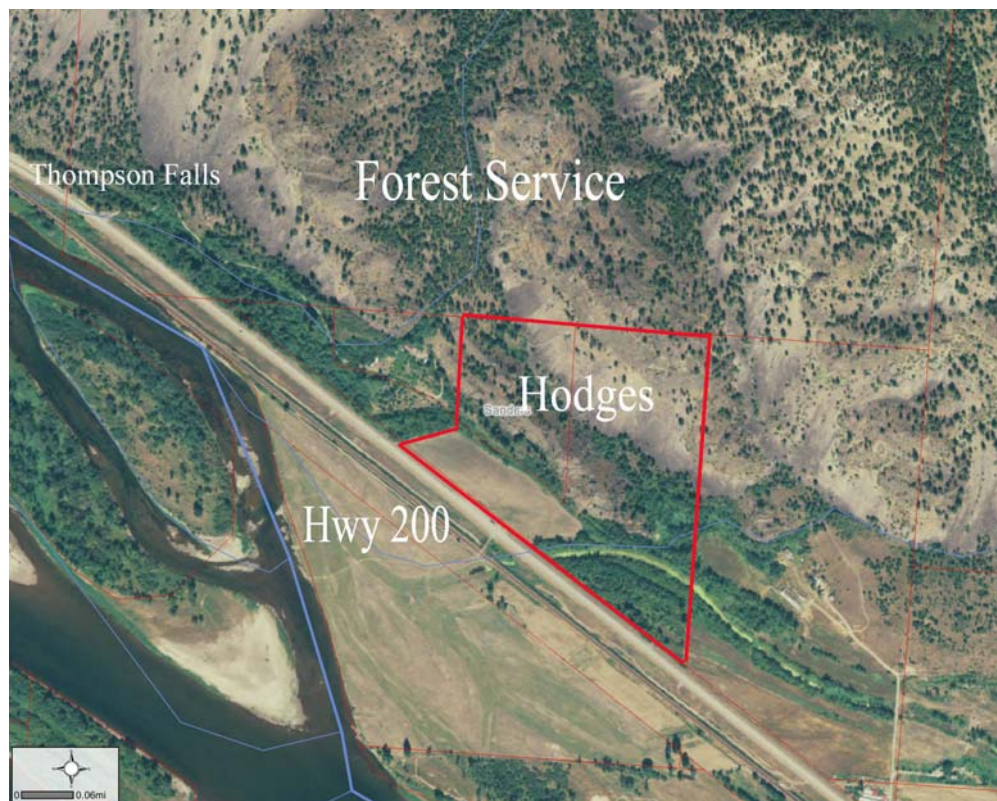
The project proposal received tentative approval from the FWP Commission during their December 2007 meeting. The project would be funded with money from the Sheep Auction Fund. This fund is derived from the auction of a single bighorn sheep permit annually and may generate several hundred thousand dollars. Additional funding was provided by the Montana Chapter of the Foundation for North American Wild Sheep, the Five Valleys Chapter of Safari Club International, Flathead Wildlife, and Mr. Les Carpenter.

This parcel receives heavy use by a migratory herd of bighorn sheep, primarily during the winter and spring months. Up to 100 sheep have been observed on the property.

The sale of this property to another entity and the construction of several homes would negatively impact FWP management of this herd and could potentially severely impact the use of this area by migratory bighorn sheep and other wildlife. This parcel contains important escape terrain for bighorn sheep and is instrumental to their overall use of the area.

Another concern relative to the sale of this property to another entity is the possible introduction of domestic sheep, whether as a hobby or for commercial purposes. Domestic sheep commonly carry a *Pasteurella* bacterium that is harmless to them. However, through simple nose-to-nose contact with wild sheep, this bacterium can be easily transmitted to wild herds with devastating effects. Entire herds have been pushed to the brink of extinction because of innocuous encounters.

The property contains some small native bunchgrass benches, hillsides, and brushy draws. The bunchgrass species include bluebunch wheatgrass, Idaho fescue, and rough fescue. The riparian areas are characterized by several species of willows, aspen, cottonwood, alder, serviceberry, and chokecherry. Tree species primarily include Douglas fir and ponderosa pine. Some of the ponderosa pine may be more than a century old. The grass in the hay field appears to be a variety of brome species.



**Figure 1. Photo showing the location of Hodges' property boundary with the Lolo National Forest on the north and private land to the south, east, and west.**



## **Project Proximity to Existing Wildlife Management Areas**

The Lolo National Forest borders the approximately 52-acre project area on the north. Two additional wildlife management areas (WMAs) are located in the immediate vicinity. The 1,500-acre Mount Silcox WMA is located about 4 miles to the west and the Roundhorn WMA is located about 6 miles to the southeast. Both of these WMAs are managed primarily for the benefit of migratory bighorn sheep.



**Wetland and associated riparian area located on the Hodges property.**

## **DETAILED PROJECT DESCRIPTIONS**

### **Habitat/Recreation Values:**

The two area WMAs provide important wintering habitat for large numbers of elk, mule deer, and bighorn sheep, which migrate to these areas from a much broader area. In addition, it is a very popular area in the fall for hunters who are pursuing these and other species. Other recreationists visit the WMA to view and photograph wildlife, hike, watch birds, and enjoy the panoramic view of the Lower Clark Fork Valley. The WMAs are available for public use from May 15 to December 1. The majority of the WMAs are closed the remainder of the year to allow wildlife an opportunity to use the area undisturbed. The Hodges property will augment the WMAs by providing important winter and spring habitat for the migratory bighorn sheep herd.

### **Location/Ownership:**

The project is located in Sanders County in Section 15, Township 21 North, Range 28 West. It is located approximately 8 miles east of Thompson Falls on the north side of Montana Highway 200. On wildlife lands, FWP, by statute, will pay the county in which the land resides “a sum

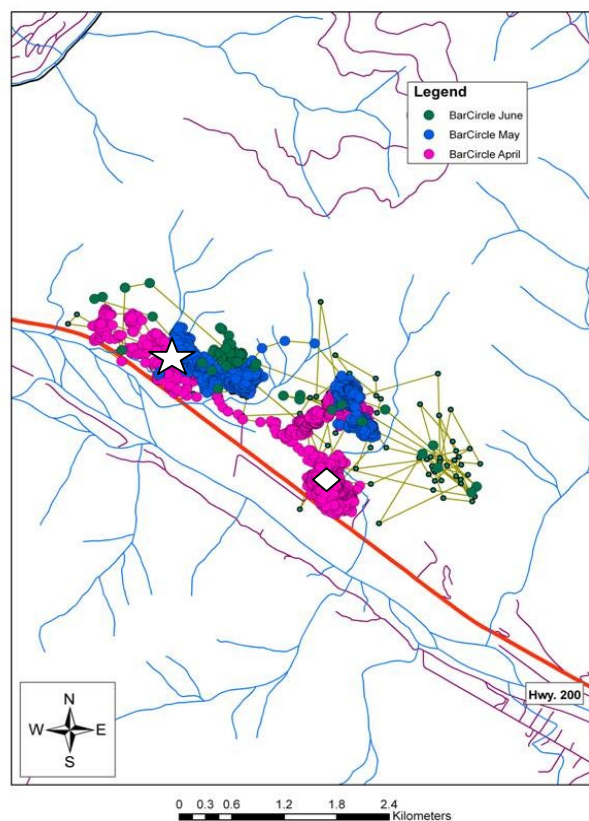
equal to the amount of taxes which would be payable on county assessment of the property were it taxable to a private citizen.” Montana Code (84-1-603).

### **Costs/Funding Sources:**

Flathead Wildlife, Inc., a Flathead Valley Rod and Gun Club, has contributed \$1,000 of their habitat fund towards this acquisition. The FWP Commission approved this project on a tentative basis at its December Commission meeting. Funding for acquisition would come from the Sheep Auction Fund. This fund is derived from the auction of a single Montana bighorn sheep permit annually and generates several hundred thousand dollars. The cost for acquiring the approximately 52-acre Hodges property is approximately \$468,000 (\$9,000/acre pending final acreage). Costs for future management of the area are expected to be minimal and will probably average less than \$100 per year. Flathead Wildlife has contributed \$1,000 from their habitat fund. The Five Valleys Chapter of Safari Club International has contributed \$5,000 toward this acquisition. The Montana Chapter of the Foundation for North American Wild Sheep has contributed \$15,000. Les Carpenter of Plains, Montana, donated \$150.

### **Bighorn Sheep:**

Most herds of bighorns in northwest Montana are the result of transplants from the Sun River herd. Examples include sheep on Wild Horse Island, and the Saint Regis, Plains, Kootenai Falls, and Cabinet Mountains herds. The Thompson Falls herd consists of about 250-300 migratory sheep and range from the Thompson River to Weeksville Creek.



**Map showing satellite GPS points of a bighorn sheep's locations and movements utilizing both the Hodges Property (star) and the Roundhorn Wildlife Management Area (diamond) from Dr. Kerry Foresman's University of Montana Bighorn Sheep Research Project in the Thompson River area.**



Bighorn sheep were historically present in the Lower Clark Fork River Valley and documented by explorers, fur trappers, and various authors in the early 1800s. By the 1900s, these sheep were greatly reduced in numbers, and by 1948 no sheep were known to exist around Thompson Falls. Reduction can be attributed to indiscriminate hunting and disease outbreaks introduced by domestic sheep, the latter being the most likely cause for the ultimate die-off in the mid 1940s. Bighorn sheep were reintroduced into the Thompson Falls area in 1959 with transplants of 13 sheep from the Sun River herd (8 ewes and 5 rams) and 5 ewes and 1 ram from Wild Horse Island.



**Bighorn sheep escape and lambing habitat on the east end of the Hodges Property.**

### **Proposed Management Plan:**

The Hodges property will become part of the local wildlife management areas and managed similarly to the rest of the WMAs to provide and protect habitat for a diversity of wildlife species. Little is expected to change from the current management of this area. Weeds will continue to be monitored and will be sprayed if necessary. The emphasis will be on maintaining the quality of the area for bighorn sheep. The pasture is currently cut for its hay quality. That practice will continue with the assistance of local farmers. A short length of fence and a gate in the western portion of the property will be constructed.

## **DISCUSSION OF ALTERNATIVES**

### **Alternative A – Proposed Action: Complete Fee Title Acquisition**

FWP would acquire the approximately 52-acre Hodges property located in Sanders County. Through fee-title ownership, FWP would have the opportunity to maintain the habitat quality of the area and minimize the potential for future conflicts, should the area be subdivided.



Recreational opportunities for the public would also be maximized. FWP would manage weeds and provide public access areas.

Alternative A compliments FWP's management goals for the Thompson Falls bighorn sheep herd and permanently conserves habitats for a variety of wildlife and for a variety of compatible public uses.

### **Alternative B – No Action**

FWP would not acquire the Hodges property. This would likely result in the property being sold and developed, possibly with several new residences. Wildlife use would likely decrease substantially and potential conflicts with wildlife and wildlife management would increase. Bighorn sheep could be displaced seasonally onto Hwy 200, causing traffic safety hazards and increasing vulnerability of the herd to vehicle mortality.

### **Description of Area Related to Indirect or Cumulative Effects**

The proposed project is in the immediate vicinity of two additional wildlife management areas. They all provide important winter range for a variety of species (primarily bighorn sheep) that migrate to the area. This project would compliment the WMAs and other habitat conservation efforts that are currently present in the Lower Clark Fork River Valley.

## **ENVIRONMENTAL EFFECTS**

This section of the environmental assessment presents an evaluation of the impacts of the alternatives, including secondary and cumulative impacts on the physical and human environment.

### **PHYSICAL ENVIRONMENT**

#### **Land Resources:**

**Alternative A:** The area would continue to provide important habitat for a variety of species. Soils would remain undisturbed.

**Alternative B:** Under the no-action alternative, the property could be subdivided and/or developed for residential or commercial uses. Roads would have to be constructed to access the property, which could lead to significant runoff, soil disturbance, and the introduction of noxious weeds.

#### **Air Quality:**

**Alternative A:** Under the proposed action, land use would be the protection of native habitat and would help insure pristine air quality. No activities would occur that could negatively affect future long-term air quality of this area.

**Alternative B:** No action would allow for land uses other than habitat protection and wildlife management. Negative impacts to current air quality in the project area could occur, especially if the area is developed for commercial purposes.

### **Water:**

**Alternative A:** Under the proposed action, water quality would receive the highest level of protection. If noxious weed spraying occurs, protection of water quality in existing wetlands will be of extreme importance.

**Alternative B:** Under the no-action alternative, the quality and quantity of water could be impacted by residential or commercial development due to runoff, leaching from septic systems, fertilizers and pesticides applied to lawns, etc. Existing wetlands could be threatened.

### **Vegetation:**

**Alternative A:** The proposed alternative would maintain the diversity, quantity, and quality of native vegetation in the project area.

**Alternative B:** Under the no-action alternative, residential or commercial use of the land could drastically alter or eliminate current vegetative communities.

### **Fish and Wildlife:**

**Alternative A:** Acquisition of the property by FWP will result in the continued maintenance and protection of habitat that is already being used by a wide variety of species, especially migratory bighorn sheep.

**Alternative B:** The no-action alternative could allow future residential or commercial development. If that occurred, development activities could severely impact the habitat with potentially significant and far-reaching effects. One example would be the introduction of domestic sheep and/or domestic goats to this parcel. Simple nose-to-nose contact with wild sheep could result in the transmission of a *Pasteurella* bacterium that could devastate the entire Thompson Falls herd. While most domestic sheep and goats carry this bacterium and are resistant to its effects, wild sheep are highly susceptible.

## **HUMAN ENVIRONMENT**

### **Noise/Electrical Effects:**

**Alternative A:** This proposed project would not have any effect on noise or cause any electrical disturbance.

**Alternative B:** No action would mean that current noise or electrical levels could drastically change in the future.

### **Land Use:**

**Alternative A:** Acquisition of this property by FWP would result in no change from the current land use, which is largely a pristine environment.

**Alternative B:** No action would mean that current land uses could change drastically in the future.



### **Risk/Health Hazards:**

**Alternative A:** The proposed action includes the potential for the occasional use of chemicals for noxious weed control. Herbicides would only be applied by a licensed applicator following label instructions and taking all precautions to prevent any accidental discharge or misuse.

**Alternative B:** No action would result in whatever health risks commensurate with development of the site.

### **Community Impact:**

**Alternative A:** The proposed action will maintain critical wildlife habitat on approximately 52 acres in Sanders County. The public will have access to the area 6½ months each year for hunting, wildlife viewing, or photography. People in Sanders County view wildlife, especially bighorn sheep, as an important public resource. Maintaining this area in its natural state will help preserve important scenic values. These benefits are difficult to quantify, but are undoubtedly important to the area's increasing tourism industry. The benefits of open lands will increase as residential development encompasses more and more rural lands. See the attached Socio-Economic Review (Appendix A) for further detail.

**Alternative B:** The no-action alternative would allow the area to be developed. While this would undoubtedly provide some revenue to the county and community in the form of new home construction and taxes, it would also result in increased costs to the county for police and fire protection, road maintenance, etc.

### **Public Services:**

**Alternative A:** The purchase of the property includes a requirement by the state to pay in-lieu-of taxes on the land equal to previous tax values. On wildlife lands, FWP will pay to the county in which the land resides "a sum equal to the amount of taxes which would be payable on county assessment of the property were it taxable to a private citizen." Montana Code (84-1-603). The state will not require any new services.

**Alternative B:** No action means that the land could be developed, resulting in increased public service requirements.

### **Aesthetics/Recreation:**

**Alternative A:** Purchase of the approximately 52 acres by FWP would preserve the aesthetic beauty of the area and maintain or increase existing public recreational opportunities. Existing open space available to the public would be maintained.

**Alternative B:** No action means that the current aesthetic and recreational values of the property would likely decrease in the future.

### **Cultural/Historic Resources:**

**Alternative A:** No known historical or cultural resources exist on the property. If resources are discovered at a later date, they will be protected by the best possible means.

**Alternative B:** No action means that there could be a higher level of risk to cultural or historical resources if the area is developed.

### **Summary Evaluation of Significance:**

Based upon evaluation of potential impacts related to the proposal, a determination has been made that an EIS is not required. The EA is an appropriate level of analysis for the proposed action because: 1) no endangered or threatened plant or animal species will be significantly affected, 2) there are no long-term or irretrievable impacts to the physical environment, and 3) there are no negative impacts to the human environment.

### **List of Agencies Consulted During Preparation of the EA:**

None

### **Public Involvement:**

The Region and FWP have received considerable support for the proposal during project exploration and development. There will be a 30-day public comment period, April 28 through May 28, 2008. The Region will make the EA available to interested individuals, groups, and agencies, and will facilitate a public hearing on Monday, May 12, at 7:00 p.m. at the Thompson Falls Court House, 1111 Main Street, Thompson Falls, Montana, to discuss the proposal and receive public comment. Please direct comments/questions to Bruce Sterling, FWP Area Wildlife Biologist, (406) 827-4389 or e-mail to [bsterling@mt.gov](mailto:bsterling@mt.gov), or Jim Williams, FWP Wildlife Program Manager, (406) 752-5501 or e-mail to [jiwilliams@mt.gov](mailto:jiwilliams@mt.gov).

### **Cost:**

The negotiated price of the approximately 52-acre property is \$468,000 (\$9,000/acre pending final acreage).



**HODGES PROPERTY  
FEE TITLE ACQUISITION  
SOCIOECONOMIC ASSESSMENT**

**MONTANA FISH, WILDLIFE & PARKS**

April 2008

## **I. INTRODUCTION**

House Bill 526, passed by the 1987 Legislature (MCA 87-1-241 and MCA 87-1-242), authorizes Montana Fish, Wildlife & Parks (MFWP) to acquire an interest in land for the purpose of protecting and improving wildlife habitat. These acquisitions can be through fee title, conservation easements, or leasing. In 1989, the Montana legislature passed House Bill 720 requiring that a socioeconomic assessment be completed when wildlife habitat is acquired using Habitat Montana monies. These assessments evaluate the significant social and economic impacts of the purchase on local governments, employment, schools, and impacts on local businesses.

This socioeconomic evaluation addresses the fee title transfer of the Hodges property to FWP using funding provided by the Sheep Auction Fund. The report addresses the physical and institutional setting as well as the social and economic impacts associated with the proposed fee title acquisition.

## **II. PHYSICAL AND INSTITUTIONAL SETTING**

### **A. Property Description**

The Hodges property is located in Sanders County about 8 miles east of Thompson Falls. This approximately 52-acre property is surrounded on three sides by private property and on the north side by the Lolo National Forest. A detailed description of this property is included in the environmental assessment (EA).

### **B. Habitat and Wildlife Populations**

The property is a mixture of grasslands and forest habitat and varies from gentle-to-steep topography. This property provides important habitat for a large number of wildlife species, primarily bighorn sheep, both seasonally and year-round. The EA provides a list of the species that utilize this property.

### **C. Current Use**

The property has been managed by the Hodges family for its timber and wildlife values.

### **D. Management Alternatives**

- 1) Purchase the property fee title
- 2) No purchase



## **MFWP Fee Title Purchase**

The intent of the Hodges land purchase is to protect the wildlife habitats found here as well as protect the integrity of the surrounding areas.

## **No Purchase Alternative**

The no purchase alternative requires some assumptions since use and management of the property will vary depending on what future owners decide to do with the property. There is potential for subdivision of these acres, which would most likely impact the use patterns of the wildlife, especially the migratory bighorn sheep herd, since they use the area for escape and lambing cover.

## **III. SOCIAL AND ECONOMIC IMPACTS**

Section II identifies the management alternatives this report addresses. The fee title purchase will provide long-term protection of important wildlife habitat and consistent management of this land. Section III quantifies the social and economic consequences of the two management alternatives following two basic accounting stances: financial and local area impacts.

Financial impacts address the cost of the fee title transfer to MFWP and discuss the impacts on tax revenues to local government agencies including school districts.

Expenditure data associated with the use of the property provides information for analyzing the impacts these expenditures may have on local businesses (i.e., income and employment).

### **A. Financial Impacts**

Montana Fish, Wildlife & Parks has agreed to purchase fee title to this property for \$468,000 with funding provided by the Sheep Auction Fund. These lands will be managed as part of the Department's wildlife management areas, and the management costs are estimated to be approximately \$100 per year.

The financial impacts to local governments are the potential changes in tax revenues resulting from the fee title purchase. The sale of this land and subsequent title transfer to MFWP will not change the tax revenues that Sanders County currently collects on this property. MFWP is required by Montana Code 87-1-603 to pay "to the county a sum equal to the amount of taxes which would be payable on county assessment of the property were it taxable to a private citizen." Current taxes on this land amount to approximately \$1,205.24 per year.

### **B. Economic Impacts**

There will not be any significant financial impacts to local businesses associated with the fee title purchase of this land and subsequent ownership by Montana Fish, Wildlife & Parks. The agency does not plan to change management practices on these acres.

#### **IV. FINDINGS AND CONCLUSIONS**

The fee title purchase and title transfer to Montana Fish, Wildlife & Parks will provide long-term protection for the habitat and wildlife, maintain the open space integrity of the land, and enhance public recreational opportunities. The fee title purchase and title transfer to MFWP will not cause a reduction in tax revenues on this property from their current levels to Sanders County under Montana Code 87-1-603. Overall financial impacts to local business will be minimal in terms of the agricultural and timber activities

## Appendix B

# How the Proposed Hodges Acquisition Fits into the Montana Fish, Wildlife & Parks Comprehensive Fish and Wildlife Conservation Strategy

## Aquatic Conservation Focus Areas in Greatest Need (Tier I)

### Lower Clark Fork (149 River Miles)



### Lower Clark Fork River Focus Area in the FWP Comprehensive Fish and Wildlife Conservation Strategy

The Lower Clark Fork River originates at the confluence of the Clark Fork River and the Flathead River near the town of Paradise and continues to the Idaho border. The Lower Clark Fork River is bordered on the south by the Bitterroot Mountains and on the north by the Cabinet Mountains. At the point where the Lower Clark Fork leaves Montana, it is the largest river in Montana based on mean annual discharge. Average annual precipitation in the Lower Clark Fork drainage is quite high in comparison to other portions of Montana due to a significant maritime influence. Relatively wet and warm winter conditions commonly lead to rain-on-snow events that significantly affect the hydrology of tributaries to the Lower Clark Fork River by increasing the frequency of high flow. The Clark Fork River has been substantially altered by the construction of the Thompson Falls, Noxon Rapids, and Cabinet Gorge hydroelectric dams. These dams currently impound approximately 63 miles of the river within Montana.

## **MFWP Comprehensive Fish and Wildlife Conservation Strategy Montane Forest Ecotype**



### **The Hodges Project lies within the Montane Forest Ecotype**

Montana's montane forests occur along the western third of the state, from the rugged peaks of the Purcell Mountains in northwestern Montana to the Beartooth Range near Yellowstone National Park. From the foothills to the summits, vast coniferous forests of larch, fir, hemlock, pine, and spruce trees characterize these areas. Such mountain forests also serve to protect the headwaters of Montana's rivers. Most of this ecotype is in public ownership through the U.S. Forest Service (USFS). Collaboration with the USFS will be critical to the conservation of these areas.

### **Soils**

Most of the montane forest ecotype is overlain by soils that are classified as cool or cold (32 to 47 degrees F) – cool in the summer, cold in the winter, and moist most of the time. Such soils generally form under forest cover and have an organic duff layer (partially decomposed leaves, etc.) underlain by either a white leached layer or a brown clay layer. If the parent material is limestone, a calcareous layer may be present. Except for the limestone-derived soils, soils in this region are usually acidic.

### **MONTANE FOREST TYPE FOCUS SPECIES**

All of these species below can be found seasonally on or near the proposed Hodges property acquisition.

**Amphibians:** Western Toad

**Birds:** Common Loon, Trumpeter Swan, Harlequin Duck, Bald Eagle, Flammulated Owl, Black-backed Woodpecker, and Olive-sided Flycatcher

**Mammals:** Townsend's Big-eared Bat, Hoary Marmot, Gray Wolf, Grizzly Bear, and Canada Lynx

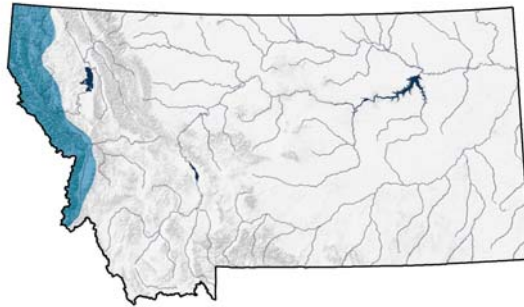


## Comprehensive Fish and Wildlife Conservation Strategies for Conservation Concerns & Strategies for Montane Forest Type Species

Conservation Concerns	Conservation Strategies
Habitat fragmentation and loss of connectivity, especially as a result of human population growth/development and related transportation network.	Support strategic conservation easements by conservation organizations and public agencies.
	Promote further development of county ordinances that help guide future residential and commercial development.
	Identify and prioritize key wildlife linkage areas, and work with other state and federal agencies, conservation groups, and landowners to restore wildlife connectivity.
	Work with Montana Department of Transportation and Federal Highway Commission to effectively mitigate impacts of highway construction.
Range or forest management practices.	Support government and private conservation activities that encourage and support sustainable land management practices (example: rest and rotation schedules).
Streamside residential development.	Develop statewide riparian best management principles.
Invasive or exotic plant species	Participate in partnerships to develop and implement weed control strategies
Human/wildlife conflicts and related wildlife mortality.	Public education regarding human/wildlife conflicts.
	Work with Montana Department of Transportation and Federal Highway Commission to effectively mitigate impacts of highway construction.
Altered fire regimes.	Work with coordinating agencies to mimic natural fire regimes.

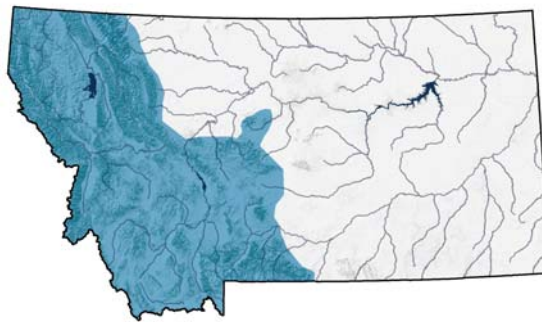
## Comprehensive Fish and Wildlife Conservation Strategy Range Maps that Encompass the Proposed Hodges Acquisition

### Coeur d' Alene Salamander (*Plethodon idahoensis*)



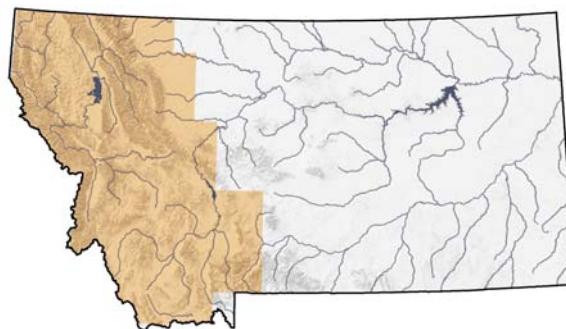
Distribution of the Coeur d' Alene Salamander

### Western Toad (*Bufo boreas*)



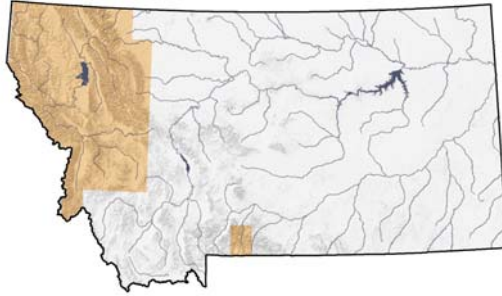
Distribution of the Western Toad

### Common Loon (*Gavia immer*)



Distribution of the Common Loon  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

**Harlequin Duck (*Histrionicus histrionicus*)**



**Distribution of the Harlequin Duck**  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

**Bald Eagle (*Haliaeetus leucocephalus*)**



**Distribution of the Bald Eagle**  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

**Black Tern (*Chlidonias niger*)**



**Distribution of the Black Tern**  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

**Flammulated Owl (*Otus flameolus*)**



**Distribution of the Flammulated Owl**  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

**Black-backed Woodpecker (*Picoides arcticus*)**



**Distribution of the Black-backed Woodpecker**  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

**Olive-sided Flycatcher (*Contopus cooperi*)**



**Distribution of the Olive-sided Flycatcher**  
(Distribution reflects entire range and does not discriminate between breeding and nonbreeding areas.)

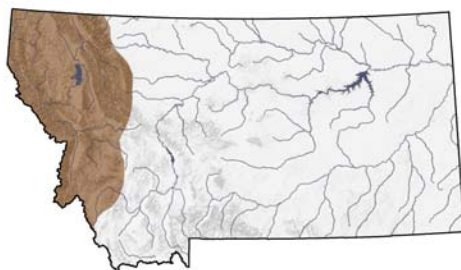


**Townsend's Big-eared Bat (*Corynorhinus townsendii*)**



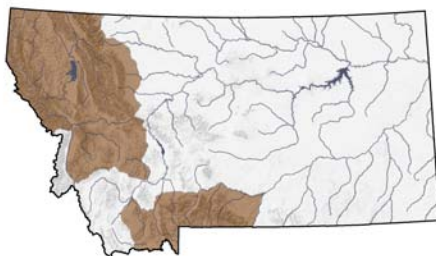
**Distribution of the Townsend's Big-eared Bat**

**Hoary Marmot (*Marmota caligata*)**



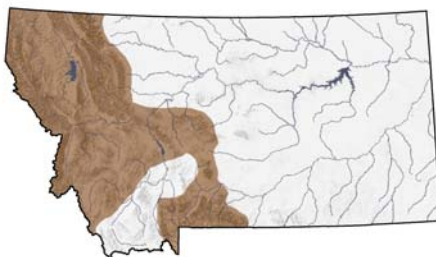
**Distribution of the Hoary Marmot**

**Grizzly Bear (*Ursus arctos horribilis*)**



**Distribution of the Grizzly Bear**

**Canada Lynx (*Felis lynx*)**



**Distribution of the Canada Lynx**

## Appendix C

Spatial join of Natural Heritage's point observation database and Hodge's property east of Thompson Falls.  
This field represents the closest point observation to Hodge's property for each species.

### Amphibians

CommonName	Scientific	ELCODE	CFWCS_Tier	SOC	MinOfMiles
American Bullfrog	Rana catesbeiana	AAABH01070	4		14.8
Coeur d'Alene Salamander	Plethodon idahoensis	AAAAD12270	1	SOC	5.6
Columbia Spotted Frog	Rana luteiventris	AAABH01290	2		3.1
Idaho Giant Salamander	Dicamptodon aterrimus	AAAAH01030	4	SOC	16.8
Long-toed Salamander	Ambystoma macrodactylum	AAAAA01080	2		2.7
Pacific Treefrog	Pseudacris regilla	AAABC05100	2		2.7
Rocky Mountain Tailed Frog	Ascaphus montanus	AAABA01020	2		5.7
Western Toad	Bufo boreas	AAABB01030	1	SOC	4.2

### Birds

CommonName	Scientific	ELCODE	CFWCS_Tier	SOC	MinOfMiles
American Avocet	Recurvirostra americana	ABNND02010	3		12.3
American Coot	Fulica americana	ABNME14020	3		12.3
American Crow	Corvus brachyrhynchos	ABPAV10010	3		5.3
American Dipper	Cinclus mexicanus	ABPBH01010	3		9.3
American Goldfinch	Carduelis tristis	ABPBY06110	3		4.3
American Kestrel	Falco sparverius	ABNKD06020	3		4.3
American Redstart	Setophaga ruticilla	ABPBX06010	2		4.3
American Robin	Turdus migratorius	ABPBJ20170	3		5.3
American Three-toed Woodpecker	Picoides dorsalis	ABNYF07110	2	PSOC	4.3
American Tree Sparrow	Spizella arborea	ABPBX94010	3		12.3
American Wigeon	Anas americana	ABNJB10180	3		12.3
Bald Eagle	Haliaeetus leucocephalus	ABNKC10010	1	SOC	0.2
Bank Swallow	Riparia riparia	ABPAU08010	3		12.3
Barn Swallow	Hirundo rustica	ABPAU09030	3		12.3
Barred Owl	Strix varia	ABNSB12020	2		6.4
Barrow's Goldeneye	Bucephala islandica	ABNJB18020	3		12.3
Belted Kingfisher	Megaceryle alcyon	ABNXD01020	3		12.3
Black Swift	Cypseloides niger	ABNUA01010	2	SOC	14.9
Black Tern	Chlidonias niger	ABNNM10020	1	SOC	7.4
Black-backed Woodpecker	Picoides arcticus	ABNYF07090	1	SOC	4.3
Black-billed Magpie	Pica hudsonia	ABPAV09010	3		4.3
Black-capped Chickadee	Poecile atricapillus	ABPAW01010	3		4.3
Black-chinned Hummingbird	Archilochus alexandri	ABNUC45020	2		4.3
Black-headed Grosbeak	Pheucticus melanocephalus	ABPBX61040	3		12.2
Blue Jay	Cyanocitta cristata	ABPAV02020	3		12.3
Blue-winged Teal	Anas discors	ABNJB10130	3		12.3
Bobolink	Dolichonyx oryzivorus	ABPBXA9010	3	SOC	15.9

Bohemian Waxwing	Bombycilla garrulus	ABPBN01010	3		12.3
Brewer's Blackbird	Euphagus cyanocephalus	ABPBXB5020	3		12.3
Brown Creeper	Certhia americana	ABPBA01010	2		9.3
Brown-headed Cowbird	Molothrus ater	ABPBXB7030	3		4.3
Bufflehead	Bucephala albeola	ABNJB18030	3		12.3
California Gull	Larus californicus	ABNNM03110	3		22.8
Calliope Hummingbird	Stellula calliope	ABNUC48010	3		5.3
Canada Goose	Branta canadensis	ABNJB05030	3		8.1
Canvasback	Aythya valisineria	ABNJB11020	2		8.0
Canyon Wren	Catherpes mexicanus	ABPBG04010	2		12.3
Cassin's Finch	Carpodacus cassinii	ABPBY04030	3		4.3
Cassin's Vireo	Vireo cassinii	ABPBW01290	3		5.3
Cedar Waxwing	Bombycilla cedrorum	ABPBN01020	3		4.3
Chestnut-backed Chickadee	Poecile rufescens	ABPAW01070	2		4.5
Chestnut-sided Warbler	Dendroica pensylvanica	ABPBX03020	4		12.3
Chipping Sparrow	Spizella passerina	ABPBX94020	3		4.3
Cinnamon Teal	Anas cyanoptera	ABNJB10140	3		12.3
Clark's Nutcracker	Nucifraga columbiana	ABPAV08010	3		5.3
Cliff Swallow	Petrochelidon pyrrhonota	ABPAU09010	3		12.3
Common Goldeneye	Bucephala clangula	ABNJB18010	3		12.3
Common Loon	Gavia immer	ABNBA01030	1	SOC	7.6
Common Merganser	Mergus merganser	ABNJB21010	3		12.3
Common Nighthawk	Chordeiles minor	ABNTA02020	3		4.3
Common Raven	Corvus corax	ABPAV10110	3		4.3
Common Redpoll	Carduelis flammea	ABPBY06010	3		4.3
Common Yellowthroat	Geothlypis trichas	ABPBX12010	3		12.3
Cooper's Hawk	Accipiter cooperii	ABNKC12040	2		12.3
Cordilleran Flycatcher	Empidonax occidentalis	ABPAE33160	3		5.7
Dark-eyed Junco	Junco hyemalis	ABPBXA5020	3		4.3
Dark-eyed Junco (Oregon)	Junco hyemalis oregonus	ABPBXA5024	3		12.3
Double-crested Cormorant	Phalacrocorax auritus	ABNFD01020	3		12.3
Downy Woodpecker	Picoides pubescens	ABNYF07030	3		4.3
Dusky Flycatcher	Empidonax oberholseri	ABPAE33090	3		5.3
Dusky Grouse	Dendragapus obscurus	ABNLC09020	2		12.3
Eared Grebe	Podiceps nigricollis	ABNCA03030	3		12.3
Eastern Kingbird	Tyrannus tyrannus	ABPAE52060	3		5.3
Eurasian Wigeon	Anas penelope	ABNJB10170	4		12.3
European Starling	Sturnus vulgaris	ABPBT01010	4		5.3
Evening Grosbeak	Coccothraustes vespertinus	ABPBY09020	3		5.1
Flammulated Owl	Otus flammeolus	ABNSB01020	1	SOC	2.6

Fox Sparrow	Passerella iliaca	ABPBXA2010	3		19.9
Gadwall	Anas strepera	ABNJB10160	3		22.8
Golden Eagle	Aquila chrysaetos	ABNKC22010	2		4.9
Golden-crowned Kinglet	Regulus satrapa	ABPBJ05010	3		4.3
Golden-crowned Sparrow	Zonotrichia atricapilla	ABPBXA4030	4		12.3
Gray Catbird	Dumetella carolinensis	ABPBK01010	3		12.3
Gray Jay	Perisoreus canadensis	ABPAV01010	3		4.3
Gray Partridge	Perdix perdix	ABNLC01010	4		12.3
Gray-crowned Rosy-Finch	Leucosticte tephrocotis	ABPBY02030	2	SOC	4.3
Great Blue Heron	Ardea herodias	ABNGA04010	3	PSOC	12.3
Great Horned Owl	Bubo virginianus	ABNSB05010	3		10.0
Greater Yellowlegs	Tringa melanoleuca	ABNNF01020	3		12.3
Green-winged Teal	Anas crecca	ABNJB10010	3		12.3
Hairy Woodpecker	Picoides villosus	ABNYF07040	3		4.3
Hammond's Flycatcher	Empidonax hammondii	ABPAE33080	2		4.3
Harlequin Duck	Histrionicus histrionicus	ABNJB15010	1	SOC	13.3
Hermit Thrush	Catharus guttatus	ABPBJ18110	3		9.3
Hooded Merganser	Lophodytes cucullatus	ABNJB20010	2		12.3
Horned Grebe	Podiceps auritus	ABNCA03010	2	PSOC	12.3
Horned Lark	Eremophila alpestris	ABPAT02010	3		4.3
House Finch	Carpodacus mexicanus	ABPBY04040	3		12.3
House Sparrow	Passer domesticus	ABPBZ01010	4		15.0
House Wren	Troglodytes aedon	ABPBG09010	3		9.1
Killdeer	Charadrius vociferus	ABNNB03090	3		5.3
Lazuli Bunting	Passerina amoena	ABPBX64020	3		5.3
Least Flycatcher	Empidonax minimus	ABPAE33070	3		12.3
Lesser Scaup	Aythya affinis	ABNJB11070	3		12.3
Lewis's Woodpecker	Melanerpes lewis	ABNYF04010	2	SOC	5.1
Long-billed Dowitcher	Limnodromus scolopaceus	ABNNF16020	3		22.8
Long-eared Owl	Asio otus	ABNSB13010	3		13.7
MacGillivray's Warbler	Oporornis tolmiei	ABPBX11040	3		5.3
Magnolia Warbler	Dendroica magnolia	ABPBX03030	4		4.3
Mallard	Anas platyrhynchos	ABNJB10060	3		12.3
Marsh Wren	Cistothorus palustris	ABPBG10020	3		16.4
Merlin	Falco columbarius	ABNKD06030	2		4.3
Mountain Bluebird	Sialia currucoides	ABPBJ15030	3		5.4
Mountain Chickadee	Poecile gambeli	ABPAW01040	3		4.3
Mourning Dove	Zenaida macroura	ABNPB04040	3		5.3
Myrtle Warbler	Dendroica coronata auduboni	ABPBX03061	3		12.3
Nashville Warbler	Vermivora ruficapilla	ABPBX01060	3		5.3



Northern Flicker	Colaptes auratus	ABNYF10020	3		5.3
Northern Flicker (Red-shafted)	Colaptes auratus cafer	ABNYF10022	3		4.3
Northern Goshawk	Accipiter gentilis	ABNKC12060	2	SOC	4.6
Northern Harrier	Circus cyaneus	ABNKC11010	2		12.3
Northern Pintail	Anas acuta	ABNJB10110	3		12.3
Northern Pygmy-Owl	Glaucidium gnoma	ABNSB08010	2		4.3
Northern Rough-winged Swallow	Stelgidopteryx serripennis	ABPAU07010	3		12.3
Northern Saw-whet Owl	Aegolius acadicus	ABNSB15020	2		12.3
Northern Shoveler	Anas clypeata	ABNJB10150	3		12.3
Northern Shrike	Lanius excubitor	ABPBR01020	3		12.3
Northern Waterthrush	Seiurus noveboracensis	ABPBX10020	3		8.8
Olive-sided Flycatcher	Contopus cooperi	ABPAE32010	1	SOC	4.4
Orange-crowned Warbler	Vermivora celata	ABPBX01050	3		4.3
Osprey	Pandion haliaetus	ABNKC01010	3		12.3
Peregrine Falcon	Falco peregrinus	ABNKD06070	2	SOC	0.4
Pied-billed Grebe	Podilymbus podiceps	ABNCA02010	3		12.3
Pileated Woodpecker	Dryocopus pileatus	ABNYF12020	2		4.0
Pine Grosbeak	Pinicola enucleator	ABPBY03010	3		4.3
Pine Siskin	Carduelis pinus	ABPBY06030	3		4.3
Pygmy Nuthatch	Sitta pygmaea	ABPAZ01030	2		12.3
Red Crossbill	Loxia curvirostra	ABPBY05010	3		4.3
Red-breasted Merganser	Mergus serrator	ABNJB21020	3		12.3
Red-breasted Nuthatch	Sitta canadensis	ABPAZ01010	3		4.3
Red-eyed Vireo	Vireo olivaceus	ABPBW01240	3		5.8
Redhead	Aythya americana	ABNJB11030	2		12.3
Red-naped Sapsucker	Sphyrapicus nuchalis	ABNYF05040	3		4.3
Red-necked Grebe	Podiceps grisegena	ABNCA03020	2		12.3
Red-tailed Hawk	Buteo jamaicensis	ABNKC19110	3		9.2
Red-winged Blackbird	Agelaius phoeniceus	ABPBXB0010	3		5.3
Ring-billed Gull	Larus delawarensis	ABNNM03100	3		12.3
Ring-necked Duck	Aythya collaris	ABNJB11040	3		12.3
Rock Pigeon	Columba livia	ABNPB01010	4		5.3
Rough-legged Hawk	Buteo lagopus	ABNKC19130	3		12.3
Ruby-crowned Kinglet	Regulus calendula	ABPBJ05020	3		4.3
Ruddy Duck	Oxyura jamaicensis	ABNJB22010	3		12.3
Ruffed Grouse	Bonasa umbellus	ABNLC11010	3		5.7
Rufous Hummingbird	Selasphorus rufus	ABNUC51020	3		4.3
Savannah Sparrow	Passerculus sandwichensis	ABPBX99010	3		12.3
Say's Phoebe	Sayornis saya	ABPAE35030	3		4.3
Sharp-shinned Hawk	Accipiter striatus	ABNKC12020	2		5.8

Short-eared Owl	Asio flammeus	ABNSB13040	3	PSOC	12.3
Snow Bunting	Plectrophenax nivalis	ABPBXA8010	3		4.3
Snow Goose	Chen caerulescens	ABNJB04010	3		12.3
Solitary Vireo	Vireo solitarius	ABPBW01OLD	3		4.3
Song Sparrow	Melospiza melodia	ABPBXA3010	3		10.7
Sora	Porzana carolina	ABNME08020	3		5.3
Spotted Sandpiper	Actitis macularius	ABNNF04020	3		10.1
Spotted Towhee	Pipilo maculatus	ABPBX74080	3		4.3
Steller's Jay	Cyanocitta stelleri	ABPAV02010	3		4.3
Swainson's Thrush	Catharus ustulatus	ABPBJ18100	3		4.3
Townsend's Solitaire	Myadestes townsendi	ABPBJ16010	3		4.3
Townsend's Warbler	Dendroica townsendi	ABPBX03080	3		4.3
Tree Swallow	Tachycineta bicolor	ABPAU03010	3		4.3
Tundra Swan	Cygnus columbianus	ABNJB02010	3		22.8
Turkey Vulture	Cathartes aura	ABNKA02010	2		4.3
Varied Thrush	Ixoreus naevius	ABPBJ22010	3		4.3
Vaux's Swift	Chaetura vauxi	ABNUA03020	2		4.3
Veery	Catharus fuscescens	ABPBJ18080	2		16.4
Vesper Sparrow	Poocetes gramineus	ABPBX95010	3		4.3
Violet-green Swallow	Tachycineta thalassina	ABPAU03040	3		12.3
Warbling Vireo	Vireo gilvus	ABPBW01210	3		5.1
Western Bluebird	Sialia mexicana	ABPBJ15020	2		5.3
Western Grebe	Aechmophorus occidentalis	ABNCA04010	2		12.3
Western Kingbird	Tyrannus verticalis	ABPAE52050	3		12.3
Western Meadowlark	Sturnella neglecta	ABPBXB2030	3		5.3
Western Tanager	Piranga ludoviciana	ABPBX45050	3		4.3
Western Wood-Pewee	Contopus sordidulus	ABPAE32050	3		4.3
White-breasted Nuthatch	Sitta carolinensis	ABPAZ01020	2		12.3
White-crowned Sparrow	Zonotrichia leucophrys	ABPBXA4040	3		4.3
White-winged Crossbill	Loxia leucoptera	ABPBY05020	2		4.3
White-winged Scoter	Melanitta fusca	ABNJB17030	3		12.3
Wild Turkey	Meleagris gallopavo	ABNLC14010	4		4.3
Williamson's Sapsucker	Sphyrapicus thyroideus	ABNYF05030	2	PSOC	5.4
Willow Flycatcher	Empidonax traillii	ABPAE33040	3		12.3
Wilson's Snipe	Gallinago delicata	ABNNF18030	3		12.3
Wilson's Warbler	Wilsonia pusilla	ABPBX16020	3		4.3
Winter Wren	Troglodytes troglodytes	ABPBG09050	2		4.3
Wood Duck	Aix sponsa	ABNJB09010	3		12.3
Yellow Warbler	Dendroica petechia	ABPBX03010	3		12.3
Yellow-rumped Warbler	Dendroica coronata	ABPBX03060	3		4.3

## Appendix C

### Reptiles

CommonName	Scientific	ELCODE	CFWCS_Tier	SOC	MinOfMiles
Common Gartersnake	Thamnophis sirtalis	ARADB36130	2		13.0
Northern Alligator Lizard	Elgaria coerulea	ARACB01010	2	SOC	4.3
Painted Turtle	Chrysemys picta	ARAAD01010	3		16.9
Terrestrial Gartersnake	Thamnophis elegans	ARADB36050	3		3.1

### Vertebrate Tier 1 & SOC

CommonName	Scientific	ELCODE	CFWCS_Tier	SOC	MinOfMiles
Bull Trout	Salvelinus confluentus	AFCHA05020	1	SOC	0.6
Canada Lynx	Lynx canadensis	AMAJH03010	1	SOC	3.6
Fisher	Martes pennanti	AMAJF01020	2	SOC	4.6
Fringed Myotis	Myotis thysanodes	AMACC01090	2	SOC	2.4
Gray Wolf	Canis lupus	AMAJA01030	1	SOC	7.9
Grizzly Bear	Ursus arctos	AMAJB01020	1	SOC	2.0
Townsend's Big-eared Bat	Corynorhinus townsendii	AMACC08010	1	SOC	2.4
Westslope Cutthroat Trout	Oncorhynchus clarkii lewisi	AFCHA02088	1	SOC	5.5
Yellowstone Cutthroat Trout	Oncorhynchus clarkii bouvieri	AFCHA02087	1	SOC	13.2

### Invertebrate Tier 1 & SOC

CommonName	Scientific	ELCODE	CFWCS_Tier	SOC	MinOfMiles
An Agapetus Caddisfly	Agapetus montanus	IITRI33040	5	SOC	10.1
Northern Rocky Mountains Refugium Caddisfly	Sericostriata surdickae	IITRIG3010	0	SOC	23.3
Western Pearlshell	Margaritifera falcata	IMBIV27020	1	PSOC	18.4
Pygmy Slug	Kootenaia burkei	IMGAS0B010	0	SOC	14.9
Smoky Taildropper	Prophyaon humile	IMGAS62070	0	SOC	14.9
Sheathed Slug	Zacoleus idahoensis	IMGAS65010	0	SOC	14.9